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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/890,155	11/09/2001	Peter Frisk	027650-937	7579
21839	7590	12/01/2004	EXAMINER	
BURNS DOANE SWECKER & MATHIS L L P			PATTERSON, MARC A	
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ALEXANDRIA, VA 22313-1404			PAPER NUMBER	
			1772	

DATE MAILED: 12/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/890,155

Applicant(s)

FRISK ET AL.

Examiner

Marc A Patterson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. In view of the appeal brief filed on September 16, 2004, PROSECUTION IS HEREBY REOPENED. A new grounds of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***Claim Objections***

2. Claims 2 – 5 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The thicknesses claimed in Claims 2 – 5 do not limit the range in the parent claim of 20 – 50 micrometers. For purposes of examination, the thicknesses of those claims will be interpreted to be within the range of 20 – 50 micrometers.

## NEW REJECTIONS

### *Claim Rejections - 35 USC § 112*

3. Claims 1 – 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification discloses a polymer having a narrow molecular weight distribution, but Claim 1 does not include the term ‘narrow,’ and instead is directed to a ‘molecular weight distribution,’ without further definition of the phrase.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 – 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eckstein (U.S. Patent No. 4,418,841) in view of Gillespie et al (U.S. Patent No. 5,536,542).

With regard to Claims 1 – 2 and 6, Eckstein discloses a packaging material for making a paper container (flexible sheet used to make a packaging tube; column 1, lines 6 – 14) comprising a thermoplastic material outermost layer (column 3, lines 38 – 43), a paper substrate layer (column 3, lines 38 – 43), a barrier layer (aluminum foil; column 3, lines 38 – 43) and a

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thermoplastic material innermost layer comprising linear low density polyethylene (therefore having a molecular weight distribution, and closer to the interior of the packaging material when the material is formed into the container; column 5, lines 21 – 27) having a thickness of 20 micrometers (0.7 to 3.0 mils thick; column 2, lines 46 – 51). With regard to Claims 1 and 6, Eckstein fails to disclose a innermost layer having a density of 0.900 – 0.915 grams per milliliter, a peak melting point of 88 to 103 degrees Celsius, a melt flow index of 5 – 20 decigrams per minute and a swelling ratio of 1.4 – 1.6.

Gilliespie et al teach the use of a polyethylene having a density of less than 0.92 grams per milliliter (column 1, lines 53 – 63), a peak melting point of 110.9 degrees Celsius (column 7, lines 46 – 60; Table 1), a melt flow index of 4 decigrams per minute (column 2, lines 60 – 64) and a swelling ratio of 1.4 – 1.6 (column 2, lines 5 – 16) for the purpose of obtaining a heat seal layer which is resistant to degradation (column 1, lines 53 – 63). The desirability of providing for a polyethylene having a density of less than 0.92 grams per milliliter, a peak melting point of 106.9 degrees Celsius, a melt flow index of 4 decigrams per minute and a swelling ratio of 1.4 – 1.6 in Eckstein, which is a heat seal layer, would therefore be obvious to one of ordinary skill in the art.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a polyethylene having a density of less than 0.92 grams per milliliter, a peak melting point of 110.9 degrees Celsius, a melt flow index of 4 decigrams per minute and a swelling ratio of 1.4 – 1.6 in Eckstein in order to obtain a heat seal layer which is resistant to degradation as taught by Gilliespie et al.

Gillespie et al fail to disclose a density of 0.915 grams per milliliter, a peak melting point of 88 – 103 degrees Celsius, a melt flow index of 5 – 20 decigrams per minute and a swelling ratio of 1.4 – 1.6. However, as discussed above, Gillespie et al disclose a density of less than 0.92 grams per milliliter, a peak melting point of 106.9 degrees Celsius, a melt index of 4 decigrams per minute and a swelling ratio of 1.4 – 1.6, and Gillespie et al teach the selection of the melt index to obtain a desired extrusion coatability (a polyethylene having a melt index much above 4 or much below 1 would not permit the polyethylene to be extrusion coatable; column 2, lines 60 – 67) and swell ratio to obtain a desired extrusion coatability (a polyethylene with a swell ratio that falls much above 1.3 or much below 1.2 is not extrusion coatable; column 3, lines 1 – 8) and density to obtain a desired heat sealability (polyethylenes having a much above 0.93 g/cc have been discovered to not be heat sealable at temperatures below 95 degrees Celsius; column 3, lines 14 – 19) and peak melting point to obtain a desired heat seal temperature (the peak melting temperature provides a heat seal temperature of 85 degrees Celsius; column 7, lines 46 – 60; Table 1).

Therefore, one of ordinary skill in the art would have recognized the utility of varying the density, peak melting point, melt index and swelling ratio of the layer to obtain a desired extrusion coatability, heat sealability and heat seal temperature. Therefore, the extrusion coatability, heat sealability and heat seal temperature would be readily determined through routine optimization of thickness by one having ordinary skill in the art depending on the desired end use of the product.

It therefore would be obvious for one of ordinary skill in the art to vary the density, peak melting point, melt index and swelling ratio in order to obtain a desired extrusion coatability,

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heat sealability and heat seal temperature, since the extrusion coatability, heat sealability and heat seal temperature would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Gillespie et al.

With regard to Claims 3 – 4, the packaging material disclosed by Eckstein comprises an adhesive layer between the barrier layer and innermost layer that is a thermoplastic material (EAA copolymer; column 3, lines 53 – 56) and an adhesive layer between the paper layer and the barrier layer that is a thermoplastic material (low density polyethylene column 3, lines 47 – 48) and the packaging material therefore comprises two adhesive layers that contain the linear low density polyethylene layer disclosed by Eckstein, because the layers form a container, as discussed, that contains the linear low density polyethylene layer.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Eckstein (U.S. Patent No. 4,418,841) in view of Gillespie et al (U.S. Patent No. 5,536,542) and further in view of Ikenoya et al (U.S. Patent No. 5,732,825).

Eckstein and Gillespie et al disclose a packaging container comprising a thermoplastic material and an innermost layer of linear low density polyethylene as discussed above. Eckstein and Gillespie et al fail to disclose a container comprising a strip tape covering a discontinuous section of the material in a liquid tight fashion.

Ikenoya et al teach the use of a strip tape to cover a section of the innermost layer of a container (column 5, lines 35 – 40; Figure 2) for the purpose of making a container which prevents leakage of liquid food (column 5, lines 45 – 50) and therefore covers a discontinuous section of the container in liquid tight fashion. The desirability of providing for a strip tape to

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cover a section of the innermost layer of Eckstein and Gillespie et al, which is a container, would therefore have been obvious to one ordinary skill in the art.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a strip tape covering a section of the innermost layer in Eckstein and Gillespie et al in order to make a container which prevents leakage of liquid food as taught by Ikenoya et al. Because the innermost layer of Eckstein and Gillespie et al comprises a linear low density polyethylene, the linear low density polyethylene is in contact with the strip tape and therefore provides a sealing surface layer.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc A Patterson whose telephone number is 571-272-1497. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Marc Patterson 11/29/04*

Marc A Patterson, PhD.

Examiner

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